

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau(43) International Publication Date
27 September 2001 (27.09.2001)

PCT

(10) International Publication Number
WO 01/71897 A1(51) International Patent Classification⁷:

H02M 5/22

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CI, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, MU, ID, IL, IN, IS, JP, KE, KG, KZ, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SF, SG, SI, SK, SI, TI, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

(21) International Application Number:

PCT/GB01/01182

(22) International Filing Date:

19 March 2001 (19.03.2001)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

0006514.4 18 March 2000 (18.03.2000) GB
0006513.6 18 March 2000 (18.03.2000) GB(71) Applicant (for all designated States except US): ALSTOM
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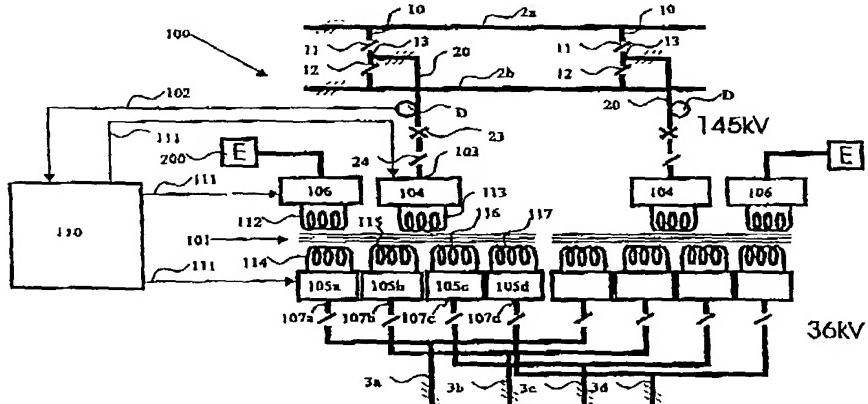
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(GB).(84) Designated States (*regional*): ARIPO patent (GH, GM,
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian
patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European
patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE,
IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF,
CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

[Continued on next page]

(54) Title: AN IMPROVED ELECTRICAL SUBSTATION



WO 01/71897 A1

(57) Abstract: A substation (100) is disclosed for use in a power transmission and distribution network. The substation comprises a single phase isolating high frequency transformer (101) having at least one input winding (112, 113) and at least one output winding (114-117) with corresponding input (104) and output (105) solid state switching networks. Each input solid state switching network (104) comprises a plurality of semiconductor switching devices which receive an input waveform from the transmission network and output a high frequency waveform to the primary winding of the transformer. Likewise, each output solid state switching network (105a-105d) comprises a plurality of semiconductor switching devices receiving a high frequency waveform from the secondary winding (114-117) of the transformer and outputting an output frequency waveform from the substation. A control means (110) is adapted to control the operation of the switching devices of the input and output switching networks (104, 105) to generate the output waveform from the input waveform.